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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,710	07/18/2000	Darvin Dale Raph	10991746-1	2017

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EXAMINER

STEELMAN, MARY J

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 01/14/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,710

Applicant(s)

RAPH ET AL.

Examiner

Mary J. Steelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/22/03, 10/24/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the RCE filed 10/24/2003.
2. As per Applicant's request, Amendment B, dated 09/22/2003 has been entered. The Specification has been amended. Claims 9 and 15 have been amended. Claims 1-20 are pending.

Specification

3. In view of the amendments to the Specification, the objections cited in the prior Office Action are hereby withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-20** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,401,220 to Grey et al.

Per claims 1, 10 and 16:

-an identifier identifying an instance of the active data type, the computer program with which the active data type is utilized identifying the active data type instance by the identifier associated with the active data type instance; (Col. 5, lines 5-7, "A step type is a modular identifiable unit..." and lines 40-41, "...the first step type defines common functionality and common data (data types) for steps (instances) of the first step type." And lines 53-59, "The user

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then creates a test sequence file for testing the unit under test...wherein one or more of the steps are of the first step type (instances of the first step type)." Each variable or property has a data type (col. 16, line 63). See col. 4, line 65 – col. 5, line 3, "A step type ...comprises a custom set of properties and/or operations associated with a step...defines common operations and/or data..." Thus a step type contains a defined data type. See col. 14, lines 23-60, "...variables and properties, in which data values can be stored. Variables are properties that the user can freely create in certain contexts...Each step...can have properties...variables are used to share data among tests...Values that are stored in variables and properties can be passed to code modules...In TestStand, the values of variables and properties can be used in numerous ways, such as passing a variable to a code module or using a property value to determine whether to execute a step (associated algorithm)." Col. 15, lines 37-60, "When the user creates a variable or property, the user specifies its data type...When a named data type is created, the user can reuse the named data type for multiple variables or properties...the values they contain can differ...TestStand defines certain standard named data types. The user can add sub-properties...The user can define his/her own custom named data types. The user must choose a unique name (identifier) for each of the custom data types...When the user creates a variable or property, the user can select from among the simple property types and the named data types.")

-at least a first algorithm associated with the active data type, the first algorithm being configured to be automatically executed when an attempt is made to access a value associated with the active data type instance. (Col. 6, lines 1-5, "...executing the pre-step functionality; executing a code module referenced by the step after executing the pre-step functionality; and executing the post-step functionality..." Col. 25, lines 31-34, "...when the user create and/or

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stores a...data of a first type in the file, the TestStand Engine automatically stores a type definition of the first type in the file in response thereto (algorithm associated with the active data type).” Additional examples of associated algorithms are found in column 25.)

Per claims 2, 11, and 17: (Col. 6, lines 55-65.)

Per claims 3, 12, and 18: (Col. 23, lines 56-65.)

Per claims 4, 13 and 19: (Col. 6, lines 44-54.)

Per claims 5, 14, and 20: (Col. 6, lines 55-64 and col. 18, lines 27-35.)

Per claim 6: (Col. 17, lines 47-67.)

Per claim 7: (Col. 17, lines 47-67.)

Per claim 8: (Col. 17, lines 47-67.)

Per claims 9 and 15: (Abstract, lines 1-8 and col. 7, lines 18-22.)

Response to Arguments

6. Applicant's arguments filed in Amendment B, entered 09/22/2003, have been fully considered but they are not persuasive.

Applicants have argued, in substance, the following:

(A) As noted on page 7, paragraph 4, of Amendment B, regarding claim 1, the Grey reference “discloses a mechanism that associates algorithms with step types, these algorithms are not associated with active data types” Grey “fails to show any association of the algorithm to an active data type or a particular variable or value of the active data type.” Additionally, paragraph 5 notes, “Grey’s algorithms do not execute in response to a call for a specific value of an active data type.”

Examiner’s Response:

The “step types”, as defined by Grey, meet the definition provided by the Applicant for “active data types”. That includes an “identifier identifying an instance” and “at least a first algorithm associated with the...type...automatically executed when an attempt is made to access a value associated...” Support for this can be found at col. 5, lines 5-7, “A step type is a modular, identifiable (has an identifier) unit...” Additionally, (col. 5, lines 4-5, 8, 40-41) step types define common operations / functionality (association of algorithms) and data / property values / properties (value associated with active data type instance). Col. 5, line 47, “The common data includes one or more property values...” (Association of algorithm to an active data type or a particular variable or value...) Grey’s algorithms do execute in response to a call for a specific value of an active data type. Support for this feature can be found at col. 5, lines 61-65, “When steps of the first step type are executed, execution includes executing the common functionality of the one or more of the steps which are of the first step type and also includes utilizing the common data (call for a specific value) for the one or more of the steps which are of the first step type.” At col. 7, lines 62-67, “The user then configures the results to be collected (values). This...includes defining one or more properties to be collected (values) for one or more of the steps in the sequence.” (execute in response to a call for a specific value.)

Applicants have argued, in substance, the following:

(B) As noted on page 8, paragraph 2, of Amendment B, regarding claim 10, the Grey reference “does not disclose an algorithm associated with an active data type, but instead associates the algorithms with step types... These associations are to functional processes, not values.” Additionally, Grey “fails to teach or suggest that the first algorithm is executed automatically when an attempt is made to access a value associated with the active data type instance.” Grey’s algorithms may execute at a call for the step type, but are not called when an attempt is made to access a value associated with an active data type instance.

Examiner’s Response:

Grey does disclose an algorithm associated with an active data type. See the response in (A) above where step types fit the definition of active data types. There exists an association of the algorithm and values. See col. 5, lines 4-5, 8, 40-41, step types define common operations / functionality (association of algorithms) and **data / property values / properties** (value associated with active data type instance). (emphasis added) Also see col. 5, line 47, “The common data includes one or more property values...” (Association of algorithm to an active data type or a particular variable or value...)

Grey does teach that the first algorithm is executed automatically when an attempt is made to access a value associated with the active data type instance. As an example, see col. 7, lines 62-65, “The user then configures the results to be collected. This, for example, includes defining one or more properties to be collected for one or more of the

steps in the sequence.” An attempt is made to access a value (a result), thereby triggering steps in a sequence (an algorithm) to automatically execute. Applicant agrees that Grey’s algorithms may execute at a call for the step type and Examiner maintains that a step type fulfills the definition of an active data type.

Applicants have argued, in substance, the following:

(C) As noted on page 8, paragraph 3, of Amendment B, regarding claim 16, the Grey reference fails to disclose the execution of an algorithm when a variable or value associated with an active data type is accessed. Grey does not describe a mechanism to process values of the step type on access of those values or a mechanism capable of accessing the value of a specific data type during read requests or performing operations during write access.

Examiner’s Response:

See responses to (A) and (B) above regarding the execution of an algorithm when a variable or value associated with an active data type is accessed. When result collection is defined and executed, (col. 7, lines 51-52) “each sequence has a local array that stores (mechanism capable of accessing the value of a specific data type during read requests or performing operations during write access) the results of each step...”

Applicants have argued, in substance, the following:

(D) As noted on page 8, paragraph 5, of Amendment B, Applicant argues that “active data types...are not coupled with the routine being called.”

Examiner's Response:

Step types meet the defined requirements of "active data types". At col. 5, lines 4-5, "the step type represents operations (coupled with routine) and/or properties associated with calling this test module."

Applicants have argued, in substance, the following:

(E) As noted on page 8, paragraph 5, of Amendment B, Applicant argues that unlike Grey's reference, "Variables of the active data type are associated with parameters in a way that does not require the routine to be changed to customize its behavior"

Examiner's Response:

Grey's test executive program can be customized by defining a process model. A process model is in the form of a sequence file (col. 6, lines 25-26). Grey disclosed at col. 6, lines 44-64, "The process model comprises a plurality of steps which call code modules...The process model includes one or more of pre-test operations, post-test operations, variables, parameters, types and code modules...Configuring of the process model includes...configuring...operations... changing the order of calls...configuring variables, parameters, types, steps and/or code modules." At col. 6, line 65, "The user then creates a test sequence file..." and at col. 7, lines 20-22, "the user invokes execution of the process model, and during execution of the process model the process model operates to call the test sequence file." At col. 16, lines 1-4, "The user can define new properties in addition to the built-in properties. Examples are high and low limit properties in a step or local variables in a sequence. Such properties are called "custom"

properties.” (Example of variables of the active data type (step type) associated with parameters in a way that does not require the routine to be changed to customize its behavior.)

Applicants have argued, in substance, the following:

(F) As noted on page 8, paragraph 5, of Amendment B, Applicant argues that unlike the Grey reference, “active data types can be used with numerous routines without requiring new type definitions...”

Examiner’s Response:

The Grey reference does allow for reuse. See col. 5, lines 28-35, “...The step type of the present invention embodies this functionality, e.g., the pre and post operations in a typical test, and places this in a configurable and **reusable** form.” (emphasis added)

Applicants have argued, in substance, the following:

(G) As noted on page 8, paragraph 5, of Amendment B, Applicant argues that Grey does not “refer to such value processing algorithms activated on access of an instance of such an active data type.”

Examiner’s Response:

See responses to (A) and (B) above regarding the execution of an algorithm (processing algorithms activated) when a variable or value associated with an active data type is accessed. When result collection is defined (variable or value associated with an active data type) and executed, (col. 7, lines 51-52) “each sequence has a local array that stores

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(mechanism capable of accessing the value of a specific data type during read requests or performing operations during write access) the results of each step...”

Therefore, the rejection of claims 1-20 is proper and maintained.

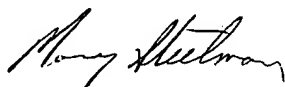
8. Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

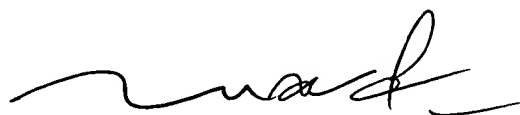
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552.

The fax phone number is (703) 872-9306 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mary Steelman



01/06/2004



TUAN DAM
SUPERVISORY PATENT EXAMINER